KLINGER®top-chem 2003

KLINGER®top-chem 2003 offers a high adaptability and tightness even at low surface loads.

PTFE filled with hollow glass-microspheres.
Excellent chemical resistance in strongly acidic and alkaline applications as well as very good properties at medium temperatures and loads.



Key features:

» High compressibility
» Consistent material composition
» Resistant to cold flow

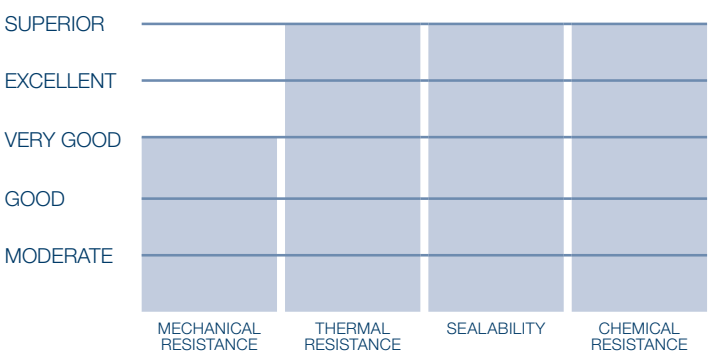
Benefits:

» Excellent sealing at low stress
» Superior chemical resistance
» Conforms easily
» Provides superior adaptability to any sealing surface
» No ageing of the material

Certificates and approvals:

» BAM tested
» DIN-DVGW
» DIN-DVGW W 270
» KTW-Guideline
» German Lloyd
» TA-Luft (Clean air)
» FDA conformity (components of KLINGER®topchem 2003 comply with the FDA requirements)
» Regulation (EU) No. 1935/2004 (incl. 10/2011)

Properties: referring to KLINGER®top-chem product range



Industries:

INDUSTRY | CHEMICAL | OIL & GAS | ENERGY | INFRASTRUCTURE | PULP & PAPER | TRANSPORT | FOOD & BEVERAGES | PHARMA

Typical technical data for thickness 2.0 mm:

Compressibility ASTM F 36 M		%	18
Recovery ASTM F 36 M		%	35
Stress relaxation DIN 52913	30 MPa, 16 h/150°C	MPa	13
KLINGER cold/hot compression	thickness decrease at 23°C	%	9
25 MPa	thickness decrease at 250°C	%	36
Tightness	DIN 28090-2	mg/s x m	0.01
Specific leakrate λ	VDI 2440	mbar x l/s x m	3.29E-06
Thickness/weight increase	H_2SO_4, 100%: 18 h/23°C	%	1/1
	HNO_3, 100%: 18 h/23°C	%	0/5
	NaOH, 33%: 72 h/110°C	%	1/5
Density		g/cm³	1.7
Average surface resistance	ρO	Ω	9x10E12
Average specific volume resistance	ρD	Ω cm	2.6x10E12
Average dielectric strength	E_d	kV/mm	16.7
Average power factor	50 Hz	tan δ	0.085
Average dielectric coefficient	50 Hz	εr	2.8
Thermal conductivity	λ	W/mK	0.18
ASME-Code sealing factors			
for gasket thickness 1.0 mm	tightness class 0.1mg/s x m	MPa	y 8.0
			m 2.0
for gasket thickness 2.0 mm	tightness class 0.1mg/s x m	MPa	y 8.0
			m 2.7
for gasket thickness 3.0 mm	tightness class 0.1mg/s x m	MPa	y 10
			m 3.6

Dimensions of the standard sheets:

Sizes:

1500 x 1500 mm

Thicknesses:

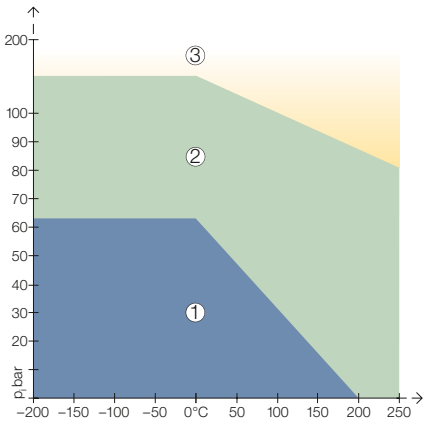
1.0 mm, 1.5 mm, 2.0 mm, 3.0 mm

Tolerances:

Thickness acc. DIN 28091-1
Length ± 50 mm, width ± 50 mm

Other thicknesses, sizes and tolerances on request.

pT diagram for thickness 2.0 mm:



① In area one, the gasket material is normally suitable subject to chemical compatibility.

② In area two, the gasket material may be suitable but a technical evaluation is recommended.

③ In area three, do not install the gasket without a technical evaluation.

Always refer to the chemical resistance of the gasket to the media.

Certified acc. to DIN EN ISO 9001:2008 Subject to technical alterations. Status: March 2016

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